

September 11, 1986

TO: File

FROM: Lynn Kunzler, Reclamation Biologist *Lynn*

RE: Site Visit to Crystal Mine, ACT/045/010, Tooele County, Utah

On August 27, 1986, Sue Linner and Lynn Kunzler met on site with Gary McFarland to review areas of poor revegetation success that will require additional seeding.

Since July 30, 1986 when the area had been originally sampled for bond release, several rain storms had occurred. The vegetation had responded to this additional moisture with significant increase in cover. The area was again examined and it was determined that only two acres would need to be seeded, 1.5 acres on the lower area and 0.5 acres on the upper area. These areas should be seeded late fall, 1986 with the following seed mix:

<u>Species</u>	<u>Rate*</u>
<u>Agropyron spicatum</u>	3.0
Bluebunch wheatgrass	
<u>Agropyron smithii</u>	3.0
Western wheatgrass	
<u>Elymus cinereus</u>	4.0
Great Basin wildrye	
<u>Sporobolus cryptandrus</u>	.25
Sand dropseed	
<u>Linum lewisii</u>	1.0
Lewis flax	
<u>Melilotus officinalis</u>	1.5
Yellow sweetclover	
<u>Penstemon palmeri</u>	.5
Palmer penstemon	
<u>Atriplex canescens</u>	2.0
Fourwing saltbush	
<u>Chrysothamnus nauseosus</u>	.5
Whitestem rubber rabbitbrush	
TOTAL	15.75 lbs.

* Rate is pounds Pure Live Seed for broadcast seeding. Areas to be reseeded should be ripped or disced 4" - 8" deep immediately prior to seeding. After seeding, crimp 1 ton of hay mulch/acre into soil.

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Five transects were sampled in the adjacent undisturbed vegetation to establish the success standard. Net vegetation cover (no weed species counted) averaged 28% with a standard deviation of 2.83. Sample adequacy exceeded the 90% confidence level with a 10% change in the mean.

As per recommendations made after the July 30, 1986 visit. Attached is a bond calculation for the two acres which does not meet the revegetation success standard. As discussed with Sid Hullinger and Gary McFarland, when bond for the two acres is posted, the Division can release the Certificate of Deposit.

jvb
Attachment
cc: Sid Hullinger
Sue Linner
0308R-29

CYSTAL MINE RECLAMATION BOND ADJUSTMENT 9/86 ACT/045/010 - JRH			
ACTIVITY	QUANTITY	COST /UNIT	TOTAL COST
TOPSOIL SCARIFICATION:	2.00	\$45.00 /ACRE	\$90.00
TOTAL AREA TO BE RECLAIMED:	2.00	ACRES	
SEED BED PREPARATION:	2.00	\$25.00 /ACRE	\$50.00
BROADCAST SEEDING:	2.00	\$65.00 /ACRE	\$130.00
BROADCAST SEEDING(By Hand):	2.00	\$120.00 /ACRE	\$240.00
SEED MIX:	2.00	\$140.00 /ACRE	\$280.00
FERTILIZER:	2.00	\$45.00 /ACRE	\$90.00
MULCH:			
Native Hay	2.00	\$325.00 /ACRE	\$650.00
SUBTOTAL			\$1,530.00
10% CONTINGENCY COSTS			\$153.00
TOTAL IN 1986 DOLLARS			\$1,683.00
ESCALATION 3 YEARS @1.62%/YR (TOTAL X 0.0494)			\$83.13
TOTAL WITH ESCALATION (1989 DOLLARS)			\$1,766.13
TOTAL BOND AMOUNT ROUNDED TO NEAREST \$100			\$1,800.00